

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 5:

(11) International Publication Number: WO 92/17621

(43) International Publication Date: 15 October 1992 (15.10.92)

(21) International Application Number:

PCT/US92/00722

(22) International Filing Date:

29 January 1992 (29.01.92)

(30) Priority data:

681,866

4 April 1991 (04.04.91) US

(71) Applicant: CONNER PERIPHERALS, INC. [US/US]; 3081 Zanker Road, San Jose, CA 95134-2128 (US).

(72) Inventors: HOLLARS, Dennis, R.; 23550 Skyview Terrace, Los Gatos, CA 95030 (US). WALTRIP, Delbert, F.; 518 Millpond Drive, San Jose, CA 95125 (US). BONIGUT, Josef; 181 Alamo Ranch Road, Alamo, CA 94507 (US). SMITH, Robert, M.; 4046 Folsom Drive, Antioch, CA 94509 (US). PAYNE, Gary, L.; 678 Bellflower, #26, Sunnyvale, CA 94086 (US). ZUBECK, Robert, B.; 1102 Lisa Lane, Los Altos, CA 94024 (US).

(74) Agents: FLIESLER, Martin, C. et al.; Fliesler, Dubb, Meyer & Lovejoy, 4 Embarcadero Center, Suite 400, San Francisco, CA 94111-4156 (US).

(81) Designated States: AT (European patent), BE (European patent), CH (European patent), DE (European patent), DK (European patent), ES (European patent), FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP, KR, LU (European patent), MC (European patent), NL (European patent), SE (European patent).

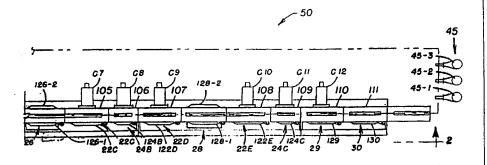
Published

With international search report.

(54) Title: APPARATUS AND METHOD FOR HIGH THROUGHPUT SPUTTERING

(57) Abstract

An apparatus provides a single or multi-layer coating to the surface of a plurality of substrates. The apparatus includes a plurality of buffer and sputtering chambers (12, 18, 20, 22A-E, 24A-C, 26 and 28-30), and an input end and an output end. The transported substrates are through said chambers (12, 18, 20, 22A-E, 24A-C, 26 and 28-30) at varying rates of speed. The apparatus may further include means for transporting a plurality of substrates through sputtering chambers (20, 26, 28) at variable velocities; means for reducing the ambient pressure within the sputtering chambers (20, 26, 28) to a vacuum level to enable sputtering operation; means for heating the substrates to a temperature conducive to sputtering coatings thereon providing a substantially uniform temperature 40 | FIGURE 2 | FIGURE



profile over the surface of the substrates; and control means for providing control signals to and for receiving feedback input from, said sputtering chambers (20, 26, 28), means for transporting, means for reducing, and means for heating, the control means being programmable for allowing control over the means for sputtering, transporting, reducing and heating.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT Austria FI I-inland MI. Mali AU Australia FR France MN Mongolia BB Barbados GA Gabon MR Mauritunia BE Belgium GB United Kingdom NI. Netherlands BF Borkina Faso GN Guinea NO Norway BG Bulgaria GR Greece PL Poland BJ Benin HU Hongary RO Romania BR Brazil IE Ireland RO Romania CA Canada IT Italy SD Sudan CF - Central African Republic JP Japan CF - Central African Republic of Korea SU Soviet Union CH Switzerland KR Republic of Korea SU Soviet Union
Cl Côte d'Ivoire